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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,844	12/11/2003	Michel Gillet	944-001.123	9020

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EXAMINER

PHAN, RAYMOND NGAN

ART UNIT PAPER NUMBER

2111

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/733,844	Applicant(s) GILLET, MICHEL	
	Examiner Raymond Phan	Art Unit 2111	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **Part III DETAILED ACTION**

#### ***Notice to Applicant(s)***

1. This action is responsive to the following communications: amendment filed on July 29, 2005
2. This application has been examined. Claims 1-31 are pending.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Moro (US Pub No. 2003/0056050) in view of Iida et al. (US Pub No. 2004/0156242).

In regard to claims 1, 13, 22, 27, 30, Moro discloses a method for enhancing performance of an electronic device having a host module operatively connected to a memory device (i.e. SD card) via a bus system (see figure 6), the bus system comprising a plurality of signal lines and N data lines for conveying signals and data between the host module and the memory device (see figure 6, para. 0057), wherein the host module is operable in a plurality of data modes (i.e. SPI, SD-4), the plurality of modes including at least one data mode (i.e. SPI and/or SD-1) that use M data lines to convey data between the host module and the memory device, with M smaller than N (N-M) unused data lines in the bus system (see figure 6, paras 0055-0059), the method comprising the step of providing in the memory device a module for generating at least one further signal (see figure 6, paras. 55-

57). But Moro does not specifically disclose the step of causing to exchange of data, based on the at least one further signal, between the host module and the memory device using at least one of unused data lines even when the host module is operated in the at least one data mode. However Iida et al. disclose the step of causing to exchange of data, based on the at least one further signal, between the host module and the memory device using at least one of unused data lines even when the host module is operated in the at least one data mode (see figure 2, table 1, paras. 0041-0045). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Iida et al. into the teachings of Moro because it would provide technology to realize high speed data transfer while compatibility in a card type storage device.

In regard to claims 2, 15, 24, 28, Moro discloses wherein the further signal comprising a command signal, conveyed to the host module on another one of unused data lines (see figure 6, para 0055).

In regard to claims 3, 16, 23, 29, Moro discloses wherein the further signal comprising a clock signal, conveyed to the host module on another one of unused data lines (see figure 6, para 0055).

In regard to claim 4, Iida et al. disclose wherein N is equal to 8 (DAT0-DAT7) and M is equal to 4 (DAT0-DAT3), leaving 4 unused data line (see figure 2, table 1, paras 0041-0045), and wherein at least one further signal comprising a clock signal conveyed from the memory device to the host module on another one of the unused data lines, and a command signal, conveyed between the host module and the memory device on yet another one of the unused data lines (see figures 2, paras 0045-0049). Therefore, it would have been obvious to a person of

an ordinary skill in the art at the time the invention was made to have combined the teachings of Iida et al. into the teachings of Moro because it would provide technology to realize high speed data transfer while compatibility in a card type storage device.

In regard to claim 5, Moro discloses wherein at least one of the unused data lines comprising two unused data line for carrying out the exchange of data in a differential manner (see figures 2, table 1, paras 0041-0045).

In regard to claims 6, 19, 31, Moro discloses wherein the electronic device is operable in a serial peripheral interface (SPI) mode (see figure 5) and the bus system further comprising a further signal line for conveying a chip select (CS) signal from the host module to the memory device and wherein further signal is conveyed from the memory device to the host module on the further signal line (see figure 5-6, paras 0055-0057).

In regard to claims 7, 20, Moro discloses the further signal comprising a command signal (see figure 5).

In regard to claims 8, Iida et al. disclose wherein N is equal to 8 (DAT0-DAT7) and M is equal to 4 (DAT0-DAT3), leaving 4 unused data line (see figure 2, table 1, paras 0041-0045). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Iida et al. into the teachings of Moro because it would provide technology to realize high speed data transfer while compatibility in a card type storage device.

In regard to claims 9, 11, Iida et al. disclose wherein exchange of data is carried out in two differential pairs (see figure 2, table 1, paras. 0041-0045).

In regard to claim 10, Iida et al. disclose wherein N is equal to 8 (DAT0-DAT7) and M is equal to 4 (DAT0-DAT3), leaving 4 unused data line (see figure 2, table 1, paras 0041-0045), and wherein at least one further signal comprising a clock signal conveyed from the memory device to the host module on another one of the unused data lines, and a command signal, conveyed between the host module and the memory device on yet another one of the unused data lines (see figures 2, paras 0045-0049). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Iida et al. into the teachings of Moro because it would provide technology to realize high speed data transfer while compatibility in a card type storage device.

In regards to claim 12, Iida et al. disclose wherein exchange of data is carried out on two or more different unused data line (see figures 2, table 1, paras 0041-0045). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Iida et al. into the teachings of Moro because it would provide technology to realize high speed data transfer while compatibility in a card type storage device.

In regard to claim 14, Moro discloses wherein the memory device comprising an embedded module 14 for generating the at least one signal (see figure 2, paras 0039-0040).

In regard to claim 17, Moro discloses wherein the electronic device is a mobile phone (see para 0005).

In regard to claim 18, Moro discloses wherein the electronic device is a PDA (see para 0005).

In regard to claim 21, Moro discloses the program (see paras 0039-0040), responsive to the further signal, for processing the data exchanged between the host module and the memory device on at least one of the unused data lines (see para 0040).

In regard to claims 25-26, Moro discloses the module for generating at least further signal comprising a micro-controller or input/output device 14 (see figure 2, paras 0039-0040).

### *Response to Amendment*

5. Applicant's arguments, see pages 3-4, filed on July 29, 2005, with respect to the rejection of claims 1-31 under 35USC 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Iida et al..

### *Conclusion*

6. All claims are rejected.

7. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

**Chou et al. (US Pub No. 2005/0182881)** disclose an extended-secure-digital interface using a second protocol for faster transfers.

**Higuchi et al. (US Pub No. 2004/0070952)** disclose an IC card and an adapter for the same.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Primary, Paul Myers can be reached on (571) 272-3639 or via e-mail addressed to paul.myers@uspto.gov. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

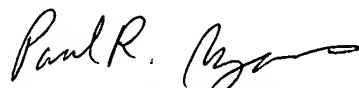
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All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see [hop://pair-direct.uspto.gov](http://pair-direct.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.

  
**PAUL R. MYERS**  
**PRIMARY EXAMINER**



**Raymond Phan**  
**October 3, 2005**